I am most grateful to Dr. Nene, Deogad for cases 2-5 and to my sister, Nina Chattopadhyaya for helping with most of the other cases.

The following notes were given to me in an interview by Dr. B. Bapiraju, presently working at King Institute, Guindy, Madras.

During the years 1963 to 1965 Dr. Bapiraju practiced medicine at the medical station in the town of Panjapatti, 30 miles from Trichy. During this two year period 40 to 50 cases of snake bite came to hospital for treatment. 60 to 70 per cent occurred at night and over 95 per cent were on the feet, a small per cent on legs, hands and arms. Most bites appeared to be from *Echis carinatus* which abounds in that area.

Patients arrived usually within a few hours of the bite; in this area the villagers are aware of the effectiveness of antivenom due to the work of the doctors. There was swelling of the limb and pain, often severe, at the site of bite. Some cases complained of severe pain in pharyngeal region. Bleeding gums not noticed. Blood in vomit in a few cases, bloody urine in 70 per cent of cases.

Treatment was by Haffkine polyvalent antivenom serum, intravenously when serious, intramuscularly when not severe. Antivenom preceded by adrenalin and cortisone. Two or three cases of anaphylaxis from sensitivity to serum. Most patients vomit within 15 minutes after receiving serum intravenously. There were no fatalities or after effects like necrosis or prolonged swelling or permanent stiffness.

The south Indian *Echis carinatus* only average 10 or 12 inches in length thus making it too small to be of great medical significance for which the big northern race is notorious.

Madras Snake Park, Guindy Deer Sanctuary, Madras 600 022, November, 1972.

R. WHITAKER

12. CLIMBING RESPONSE OF TWO SNAKE SPECIES DURING RAIN. (ECHIS CARINATUS AND VIPERA RUSSELLII)

(With a plate)

Thirty adult saw-scaled vipers and forty-eight juvenile Russell's vipers were kept in a smooth sided concrete pit $4' \times 8' \times 4'$ with grass, rocks, shrubs and cacti during 1972. During nocturnal rain showers in August and subsequent months it was noticed that rain stimulates a climbing urge in these snakes. Sometimes a mixed mass of twenty snakes could be observed on the top of one cactus or small shrub. The Irula tribals already know this as they systematically collect Echis in shrubs and behind tree bark during the wet part of the year.

It is often noticed that humidity alone causes a dramatic increase in reptile activity in general. Some snake species are especially active during heavy rain, the hole dwelling and smaller forms perhaps because of the direct flooding action of the rain. Cobras (and other species notably susceptible to cold) spend much of their time in trees during the cold, rainy part of the year in south-eastern India.

Madras Snake Park, Guindy Deer Sanctuary, Madras 600 022, January 29, 1973. R. WHITAKER

13. COLOUR VARIATION IN RUSSELL'S VIPER (VIPERA R. RUSSELLII)

(With a plate)

Russell's vipers from the Indian sub-continent and Ceylon are fairly uniform in colour. The exception is the geographic race from the northern part of the western ghats in Maharashtra.

The typical Indian Russell's viper is light brown above with brown, black and white ringed oval spots dorsally. The Maharashtra form is a light yellowish brown snake with almost completely uniform dark spots with only a suggestion of the white ring. The underside is uniformly yellowish white. The Madras form is brightly marked with occasional black markings ventrally. Those from the Calcutta area are similar to the Madras colour form but darker and always with black spots ventrally.

Madras Snake Park, Guindy Deer Sanctuary, Madrass 600 022, March 29, 1973. R. WHITAKER

14. ON THE SEXUAL DIMORPHISM OF A SILUROID FISH, OMPOK BIMACULATUS (BLOCH), WITH PARTICULAR REFERENCE TO PECTORAL SPINE

While handling large numbers of specimens of *Ompok bimaculatus* (Bloch) in the laboratory and in the field in connection with investigations on its biology in Kulgarhi reservior (MP) some disparity was observed in the dentition pattern, size and stiffness of the pectoral spines of males and females. The genital papilla was also observed to